

What is Caimed is:

1. A vulcanizable rubber composition comprising a vulcanizable rubber and a precipitated silica having the following physico chemical properties:

BET surface area 35 to 350 m²/g

BET/CTAB surface area ratio 0.8 to 1.1

Pore volume, PV 1.6 to 3.4 ml/g

Silanol group density (V₂ = 6 to 20 ml
NaOH consumption)

Average aggregate size 250 to 1500 nm

CTAB surface area 30 to 350 m²/g

DBP value 150 to 300 ml/100 g

V₂/V₁ by Hg porosimetry 0.19 to 0.46

DBP/CTAB 1.2 to 3.5.

2. The vulcanized rubber composition of claim 1, wherein the particle fineness of said precipitated silica is less than or equal to 11 µm.

3. The vulcanized rubber composition of claim 1, wherein the particle fineness of said precipitated silica is less than or equal to 10 µm.

4. A vulcanized rubber compound comprising a precipitated silica having the following physico chemical properties:

BET surface area 35 to 350 m²/g

BET/CTAB surface area ratio 0.8 to 1.1

Pore volume, PV 1.6 to 3.4 ml/g

Silanol group density (V₂ = 6 to 20 ml
NaOH consumption)

Average aggregate size 250 to 1500 nm

CTAB surface area 30 to 350 m²/g

DBP value 150 to 300 ml/100 g

V₂/V₁ by Hg porosimetry 0.19 to 0.46

DBP/CTAB 1.2 to 3.5.

5. The vulcanized rubber compound of claim 4, wherein the particle fineness of said precipitated silica is less than or equal to 11 μm .
6. The vulcanized rubber compound of claim 4, wherein the particle fineness of said precipitated silica is less than or equal to 10 μm .